



MUSEUM
ALLIANCE

QUARTERLY

LOS ANGELES
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Museum Treasures Paraded

The annual meeting of the Museum Alliance was a smashing success. Attended by some 290 members, it was held in the rotunda of the Museum and included a parade of treasures belonging to the Museum.

The unique idea was the concept of Mrs. Justin Dart, the annual meeting chairman, who introduced Dr. Herbert Friedmann, director, as the "Museum's greatest treasure."

After Dr. Friedmann told of the accomplishments of the year, the chief curators of each department paraded, with the help of Docents who trundled them about on wheeled tables, special treasures that have been either purchased for or given to their departments during the year.

These included: an African marimba, a Tairona gold pendant, a double coconut, a Galapagos tick, Cuban tree snails, an arboreal alligator lizard, a sharpspine netdevil (a fish), a flying mouse squirrel,

extinct Hawaiian honey creepers, one of the earliest Kodaks, a 19th century kerosene fan, costumes, a trachodon skull, a primitive saber-tooth cat skull (Hoplphoneus) 400,000,000 year-old trilobites from Alberta (primitive arthropods), and proustite, a silver antimony sulphide from Chanarcillo, Chile.

Sherry, aperitif cookies, and sandwiches were served after the meeting, during which time the guests could view the treasures which were on display and query the Docents about them.



World Famous Rancho La Brea

On Friday, June 13th, Alliance members joined the general public and civic dignitaries in opening a major paleontological dig at the world famous LaBrea Tar Pits.

"Springs of pitch" were first noted at Rancho La Brea in 1769 by the Spanish explorer, Gaspar de Portola. More than 100 years passed before the La Brea pits were finally recognized for what they were — a unique window into the past.

For thousands of years these pits had been death traps for wildlife. Early animals mistook the shiny black pools for water and became entangled. The asphalt, in turn, served as a preservative for the bones of the doomed animals. Even today sticky, heavy asphalt continues to seep up into the pits from underground deposits.

As a result of extensive exploration between 1906 and 1915, the Tar Pits have become the world's largest deposit of Ice Age fossils. More than 500,000 specimens have been recovered, representing at least 200 different kinds of mammals, birds, reptiles, insects and plants. More has been learned about North American Ice Age animals and plants from these Tar Pits than from any other single source.

Although the Ice Ages of the Pleistocene lasted nearly 3,000,000 years

ago) the Tar Pits may have existed for only the last 40,000 years. It should be noted that dinosaurs disappeared more than 65,000,000 years ago, which explains their absence from the pits.

The unusual abundance of fossil bones in so shallow a deposit, covering a geologically brief time span, makes the pits unusually informative to scientists. By contrast, most fossil beds involve much greater depths and far longer periods of time. Rancho La Brea provides a sharp focus on the recent past.

The aims of the current excavation are manifold: — The possible discovery of previously unknown large fossil species. — The recovery of "microfossils" (rodents, lizards, birds, pollen, seeds, hair plus other organisms) possibly overlooked in past studies. — The probing beyond the presently known 43 foot depths of fossil deposits. — The clarifying of "stratification" or of mixing of entombed fauna and flora. — The seeking for human evidence. — The studying of chemical and pit wear effects on specimens. — The determination of the source of the asphalt. — The application of modern scientific techniques using team coordinated study methods. — The presentation to the public of a unique opportunity to view a scientific "DIG" in process in the heart of a major American city.

This project is sponsored by the Board of Trustees of the Los Angeles County Museum of Natural History Foundation.



Inaugurating the LaBrea dig with souvenir shovels (a number of which were given to spectators as mementos) are left to right: Dr. Herbert Friedmann, museum director; L. A. County Supervisor Ernest Debs; Mrs. E. Hadley Stuart, Jr., and Ed N. Harrison, members of the museum Board of Governors.

Letters to the Editor

Over the years it has been my pleasure to be in attendance at most, if not all annual meetings of the Museum Alliance, and I have yet to attend a more pleasurable, unusual and enjoyable one than the 1969 held last month.

Surely credit must go to many individuals as well as firms, for they evidently spent a great deal of time and effort to assure the membership that this would be a most memorable occasion — an outstanding meeting, which it most definitely was!!

It seems a shame that ALL Museum Alliance members couldn't have been present. Those who were there must have found the same thought running through their heads during the morning.

Heartiest congratulations for a job extremely well done!

Cordially,
Evelyn Leshin

The annual meeting was great... Could you give us the recipe for the cheese cookies?

Mrs. Bernard Hellinger

Cheese Biscuits

1/2 Lb. Butter
2 C. Flour
3/4 Lb. Grated Extra Sharp Cheddar Cheese
Salt
Paprika
Work Together
Turn into 1 1/2" thick rolls
Roll in poppy seed or sesame or caraway seeds
Wrap in wax paper
Store in deep freeze
Slice and bake 350°

This is a list of donors to the museum, separate from membership in the Alliance. The following have given \$50 or more to the Los Angeles County Museum of Natural History or the Los Angeles County Museum of Natural History Foundation during the first three months of 1969.

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QUARTERLY

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GREY LEGGINGS:
a Comanche who guided
Colonel Grierson to the
site of Fort Sill in 1868

THE MAN WHO PHOTOGRAPHED INDIANS

Will Soule: Indian Photographer at Fort Sill, Okla. 1869-1874

Russell E. Belous
Curator of Western History

Robert A. Weinstein
Research Associate in the
History of Photography

The following article and photographs are excerpted from the newly-published book by the Ward Ritchie Press: Will Soule, Indian Photographer at Fort Sill, Oklahoma, 1869-1874 by Robert A. Weinstein and Russell E. Belous.

It may not be an exaggeration to suppose that if there had never been an American Indian, then he would have had to have been invented. Indeed it sometimes seems as though he had, for

the difference between myth and reality is often a meager one. President John F. Kennedy once wrote: "For a subject worked and reworked so often in novels, motion pictures, and television, American Indians remain probably the least understood and most misunderstood Americans of us all." We believe that the following pages show that this native American **was** a reality and can be understood.

The years during which Will Soule photographed at Fort Sill were critical ones in the United States Government's long attempts to "pacify" these Indians. The chiefs and warriors shown in these

photographs were then free, proud braves, confident still of their ability to live on, in the old ways, on their own lands.

These are the Indians whom the white men justly feared. Soule's portraits are not of pacified, over-dressed, "carnival" Indians with whom the white man could feel comfortable. These were warriors in every sense of the word, able and deadly. Such Indians could endure hardships beyond belief, ride like mounted demons, and fight with indescribable fury. These Comanche, Kiowa, Kiowa-Apache, Arapaho, Apache were the "savage" defenders of their families, their



PACER: Chief of the Kiowa-Apaches for many years, he was a man of considerable intelligence and ability, and was a consistent advocate of peace. He died in 1875 and is buried in the Post Cemetery at Fort Sill.

home, their tribal rights, and their traditional tribal land.

These are the Indians who died fighting the white man, not those who surrendered to be imprisoned and to die on government reservations. The names of many of these warriors are still uttered with pride by their living descendants.

It speaks much of Will Soule as a man that he was able to enjoy the limited trust and confidence of such warriors. It was this trust and confidence that enabled him to make the portraits of them that we can see again today. Such portraits and views should help us understand more clearly the tragic and bloody relationships created between American Indians and the white majority over two hundred difficult years of technological progress.

Who were the ancestors of these Indians, the people who sat in front of his camera one hundred years ago?

Some 35,000 years ago, they had come out of Asia to the New World — the continent of North America and, although cut off from the Near and Far East centers of development by the two great oceans, they achieved much in

their isolation. Their independent discoveries and inventions were to rival many of those of the Old World.

It seems likely that the first wave of migrants followed the coastal plain, north and east to the valley of the Mackenzie. As nomadic hunters and fishermen, they began to make their way south to the Plains regions, where they found a land abounding in game and free from human enemies. The population of the continent was very early divided into two recognizable culture complexes: the seed-gatherers of the Rocky Mountain Plateau west to California and east across Texas; the game hunters centered in the High Plains of the Western United States with some penetration into the Eastern Woodlands and toward the Texas border.

By 1000 B.C., maize had found a favorable environment in Middle America and at the time of the arrival of the white man, the first reshuffling of the population under the impact of agriculture had already taken place. Settled life in semi-permanent villages, supported by agriculture, had spread as far north as the crops would support it. A series of

regional culture patterns had emerged, linked with particular climatic and environmental areas. The predominantly hunting or fishing cultures included the Eskimo, Northeast Woodlands, Plains, and Northwest Coast. In the remaining areas, Southeast Woodlands, Rocky Mountain Plateau, Southwest and California, vegetable food was most important, with incidental dependence on hunting and/or fishing.

So for thousands of years the American Indian was alone, save for a few visitors from Polynesia and Northern Europe. In the year 1492, these diverse North American tribes numbered about a million people. In temperament they ranged from the peaceful Pima of Arizona to the belligerent Iroquois of New York. Some were town dwellers, others nomadic hunters. The Shoshoni of the Plateau, living in comparative isolation, hunting deer and gathering wild seeds and pinon nuts were in contrast to the enormously skilled maritime people of the Northwest Coast. Separated from the rainy forest of the Northwest by the Rockies, the Plains stretched east and southeast, an almost limitless expanse



SITTING BEAR:

A Kiowa chief and medicine-man, he negotiated the historic peace treaty, in 1840, with five Indian tribes; he headed the list of signers of the Medicine Lodge Treaty of 1867. Disillusioned by his son's death in battle, he led several raids on wagon trains. In 1871 Sitting Bear was arrested at Fort Sill and deliberately invited death by attempting to escape. Singing the death song, he died in a hail of bullets.

of grasslands rolling all the way from the mountains to the Mississippi. Until the horse was introduced by the Spanish, the Plains were quiet. Farming tribes — the Mandan and the Arikara — led a settled existence along the rivers of the region and occasionally hunted buffalo. The huge herds that wandered through this area were also followed by nomads, the Comanche and Apache, but hunting the buffalo on foot yielded too small a reward either to attract or to sustain a large population.

East of the plains, the forests of the Eastern Woodlands reached from the Mississippi to the Atlantic Coast. Here were the tribes so well known in America's colonial history: Mohegan, Delaware, Iroquois, Mohawk, Oneida. Banding together, they built a successful political system, a confederation, which endured for at least two centuries.

Scarcely less formidable than the Iroquois were the warlike Muskogean tribes of the Southeastern region, the Creek confederacy, the Chickasaw and Choctaw. In the mountains of what was to become Georgia and the Carolinas, were the Cherokee, an argicultural tribe.

One influential tribe of the Muskogean family, the Natchez, inherited a mound-building tradition that began over 2,000 years ago in the Ohio Valley. These "temple mound" people offered a complex, class-structured society and the only absolute monarchy known among the North American Indians.

By 1809, more than 100 million acres of Indian lands east of the Mississippi had been acquired by intimidation, bribery, questionable treaties, and dubious procedures. In 1830, President Andrew Jackson persuaded Congress to pass legislation authorizing the President "to exchange the public domain in the West for Indian lands in the East, (and) to give perpetual title to the country thus exchanged. . . ." But, twenty-four years later, the Kansas-Nebraska Act doomed the Indian Territory concept, with all of its pledges of "perpetual title." The United States, once a small country east of the Mississippi, now saw itself as stretching from coast to coast. By 1830, the lands east of the Mississippi were being carved up into states, and the Indians there began to move west into the near empty hunting country.

By 1849, the War Department turned the whole Indian problem over to the Department of Interior. It was understood that the duty of this department was to get all Indians settled on reservations and out of the white man's way. The new treaties did not merely ask the Indians to remain within boundaries while the white man passed; they marked off reservations which were not large enough for hunting, but only for farming and cattle-raising on land of dubious value for either. The horse and buffalo days seemed over, and some Indians accepted the reservation. The old men put away the medicine bundles and soon refused to teach the young people any Indian lore. "Better to turn around," they said, "and lead a new life."

Indians of the Great Plains and the Rocky Mountains, about 225,000 in number, presented a formidable obstacle to white settlement. The strongest and most warlike were the Sioux, Blackfoot, Crow, Cheyenne, Arapaho, and Nez Percé in the north; the Comanche, Apache, Ute, Kiowa, Southern Cheyenne and Southern Arapaho in the south and center. Mounted on swift horses, well



WHITE HORSE: one of the outstanding Kiowa warriors. He led the raid on the mules at Fort Sill (1870), and was one of the group who attacked Adobe Walls, Texas. White Horse surrendered in December, 1874, and was sent to Fort Marion, Florida, for confinement. He was returned to Fort Sill in 1878.

armed for plains warfare, and living on the herds of buffalo that roamed the open range, these tribes long maintained a stubborn resistance to white penetration of their hunting grounds. The first serious invasion of these hunting grounds came with the great migration of the 1840's. The advance of miners into the mountains, the building of transcontinental railroads in the late 1860's and the invasion of the grasslands by cattlemen threatened every western tribe with the same fate as that which had nearly decimated the California Indian.

Until 1861 the Great Plains had been relatively peaceful, but in that year the invasion of Colorado by thousands of miners and the advance of white settlers along the upper Mississippi and Missouri began a series of armed clashes. The Dakota Sioux in 1862 devastated the Minnesota frontier and massacred or captured almost 1,000 settlers. On the southern plains, the Cheyenne, Arapaho, Comanche and Kiowa fought Union and Confederate troops alike during the Civil War. When Colorado volunteer troops nearly exterminated Black Ket-

tle's Sand Creek camp in 1864, news of the tragedy spread to the Northern Cheyenne and the Sioux; their retaliation was quick. In spite of the 1865 treaty with the Sioux which obtained passage of the Bozeman Trail into the gold fields of western Montana, and, in 1867, the Medicine Lodge Treaty, warfare continued. Nearly 200 pitched battles occurred in the years 1869-1876.

A new era in federal policy toward the Indian began in 1870-71. Former Indian Commissioner John Collier refers to one facet of this policy: "Beginning about 1870, a leading aim of the United States was to destroy the Plains Indians' societies through destroying their religions; and it may be that the world has never witnessed a religious persecution so implacable and so variously implemented." Native groups were placed in concentration camps, shifted about at the whim of bureaucrats, starved, intimidated, and persecuted. Their religious ceremonies were forcibly suppressed, and every effort was made to destroy their secular cultural heritage as well. In addition, the administrators of the program were often corrupt, and sup-

plies intended for the impoverished natives ended up in the hands of whites.

By 1872, General Francis C. Walker, Commissioner of Indian Affairs, would conclude that: "Every year's advance of our frontier takes in a territory as large as some of the kingdoms in Europe. We are richer by hundreds of millions, the Indian is poorer by a large part of the little that he has. This growth is bringing imperial greatness to the nation; to the Indian it brings wretchedness, destitution, beggary."

Historians have long speculated on whether the final results would have been different if the various Indian tribes had been able effectively to unite. Perhaps they might have tired out the United States, (as white resistance to reconstruction was doing in the South); but no Tecumseh, no Prophet appeared. With rare exceptions the Indian was divided into small parcels and defeated piecemeal.

The death knell of the Sioux was struck in 1875 when prospectors discovered gold in the Black Hills of South Dakota. These hills, to the Sioux, were holy ground which the government had

BIG BOW: A Kiowa who probably "killed and scalped more white people than any of his comrades." He escaped punishment by surrendering the entire Kiowa tribe at Fort Sill, 1875.



promised to retain for them inviolate. For one summer General Sheridan was able to hold back the greedy gold seekers, but in the following spring they broke through. Under Sitting Bull and Crazy Horse the Sioux struck back. The resulting campaign of the 7th Cavalry in the following year is well known to almost everyone. It was on the Little Big Horn that the Custer legend began — when he, and his entire command of nearly 300 officers and men were surrounded and killed by the braves led by Crazy Horse. When, several months later, Colonel Nelson A. Miles caught up with and defeated him, hostilities on the northern plains were nearly at an end. The final act was the surrender of Sitting Bull in 1881. In that year, however, President Arthur would admit: "We have to deal with the appalling fact that though thousands of lives have been sacrificed and hundreds of millions of dollars expended in the attempt to solve the Indian problem, it has until within the past few years seemed scarcely nearer a solution than it was half a century ago."

Bleak prospects for the future com-

bined with nostalgic memories of the past to produce a state of mind particularly susceptible to a Messianic fervor that swept the western reservations in 1889 and 1890. A strange mixture of Christianity and paganism, the Ghost Dance religion promised a return of the old order and the disappearance of the white race. This religious militancy provoked a call for military protection. On December 29, at Wounded Knee, South Dakota, soldiers of Colonel James W. Forsyth's 7th Cavalry tried to disarm Big Foot's band of Sioux, who had fled from the Cheyenne River Reservation. The resulting battle, or massacre if you prefer, caused the death of many Indian women and children. It has always served as a tragic reminder that it was this that marked the close of the Indian wars.

The Indian wars on the Southern Plains in the United States provided the time, the locale, the events and the people for Will Soule's photographic "drama" of the Southern Plains Indians: the Kiowa, Kiowa-Apache, the Cheyenne, the Comanche, the Apache, the Wichita, the Caddo and the Arapaho.

The time began for Will Soule, con-

valescing Civil War veteran, late in the fall of 1868, at Fort Dodge, Kansas, followed quickly in turn by a winter stay with General Philip Sheridan's campaigning troops at Camp Supply in Indian Territory. From there, Will Soule accompanied the troops to the newly-building Fort Sill in Oklahoma, deep in Kiowa and Comanche territory, where he remained through the mid-year of 1874.

He photographed the construction of the fort for the United States as well as some of the many personalities and events concerned with Fort Sill in those founding years. He left Oklahoma Territory late in 1874 or early in 1875 to return to his home in Boston.

Soule's remaining work is a vivid series of images of one terrifyingly real aspect of the prolonged, tragic Indian Wars on the Southern Plains.

There was a great need to photograph the American Indian. The inaccurate images of the emigrant's fevered imagination were more terrifying, more immobilizing than the real live Indian. The myth of the "savage Red Man" died slowly and very hard. The many drawings and paintings of artists who visited



KICKING BIRD:

A friendly Kiowa chief, one of the signers of the Medicine Lodge Treaty. He helped in persuading Big Bow surrender at Fort Sill in 1875. His friendship with the whites angered the war chiefs, and he was to suffer martyrdom, dying in 1875, probably of poison.

among them could not match the reality of the photograph. While artists were often perceptive to a high degree and humanistically sympathetic in their portrayals, the inherent romantic elements of contemporary painting did not provide a reassuring enough image of the Plains Indians to the westbound traveler.

The earliest photographers in the United States, the daguerreotypists, found the Indian a valuable and often willing subject for their cameras. It is not yet possible to determine who among them may have taken the first Indian daguerreotype portrait. John Plumbe, Jr., a Washington, D.C. daguerrean artist, opened twelve galleries in American cities, including Dubuque, Iowa, and St. Louis, Missouri, in the early 1840's. In his St. Louis gallery he might easily have photographed one or more of the Indians arriving and departing regularly.

Information about the new West was urgently needed. Numerous surveys, official and private, were busy exploring and recording. Reports of every kind abounded. The flood of information and myth about the Great American West was in full flower in 1869.

Most reports were long, wordy, and, in the main, laborious reading. The new element in reporting was the visual record made possible by the camera. As adequate methods for printing photographs had not yet been developed, drawings, engravings, and lithographs made from photographs frequently accompanied reports. Official United States Government reports often included portfolios of mounted photographic prints, 11" x 14" or larger. Such photographs — "the real thing" — were very impressive to all who saw them. The names and the reputations of the new Western photographers were fast becoming important. The call to photograph the new frontier was becoming loud and clarion.

A bold and busy nation, bursting with the will and energy to expand, was eagerly waiting to see all of itself through the camera lens. The practice of photography was only 22 years old in 1861, the opening year of the Civil War. Although newly discovered, its technical development was rapid and its popular acceptance was widespread. It had quickly passed through its succeeding stages of growth, marked in turn by

daguerreotypes, ambrotypes, ferrotypes, paper negatives and paper prints. In 1861 the making of glass, wet-plate collodion negatives and paper contact prints was well advanced. This wet-plate process used by photographers serving both armies of the Civil War was to a large degree successful in replacing the time-honored "artist-correspondent." It succeeded as well in presenting to the public for the first time in history the true horror of modern warfare. Corpse-littered battlefields, filthy living conditions, sickening medical facilities, exhausted, wounded, and dying soldiers could now be seen by the noncombatants in all of their cold, pitiless reality.

The camera had been successfully used for the first time as a "news gatherer" during the Civil War. Now its potential for more rapid communication of information about people, places and events was assured. The period of intensive, photographic documentation of the American scene was on stage, charged and anxious to get going.

It is interesting to note here that Indians, having experienced little previous contact with the white man, were



WHITE BEAR: known as the greatest Kiowa chief and warrior, with the title of "Orator of the Plains." He is shown here wearing the uniform of a Major General, presented by General W. S. Hancock. Arrested several times for leading raiding parties, White Bear committed suicide, in 1874, by throwing himself from an upper story of the prison hospital.



WHITE BEAR



WOMAN HEART:

As one of the Kiowa chiefs, Woman Heart was with an Indian delegation to Washington, D.C., 1872. Jailed with White Horse and Big Tree in 1875, Woman Heart was later sent to a Florida prison.

unafraid and welcomed the daguerreotypists — this in spite of the understandable concern they felt about a picture-making process that was quite unintelligible to them.

But the “shadow-catchers,” as the photographers were called by the Indians, soon became a real cause of concern to the latter. The original Indian attitude of skeptical cooperation soon changed into one of suspicion, mistrust, and fear. Convincing evidence of this about-face is frequently found expressed in the writings of later photographers who attempted vainly to photograph among the Indians.

Charles R. Savage, senior partner in the well-known Salt Lake City photographic firm of Savage & Ottinger, summed up the frontier photographer's problem in a report to the **Philadelphia Photographer** of his trip in 1866 across the plains from Nebraska City, Nebraska, to Salt Lake City.

“To photograph successfully on the Plains you must be perfectly safe from Indians, as on two or three occasions in our efforts to secure some views, we found ourselves alone several miles

from the train and ran one or two risks of being grabbed up by a few stray rascals who are always on the lookout for a weak party and generally manage to pounce down upon a few defenseless wagons that happen to be passing. The sad fate of our former correspondent, Mr. Glover, shows how uncertain is life in such place and the wisdom of keeping a good lookout. The necessary conditions for success under such circumstances are that you must have plenty of time at your disposal, a strong party well armed with Henry rifles and good animals.”

Without doubt the 1870's produced more Indian photographs of serious historic and ethnological interest than any other ten-year period. Between the professionals accompanying government survey expeditions and the numerous professional and amateur photographers flocking to open studios and galleries on the developing frontier, there were quite enough men, women, and equipment to produce this magnificent ten-year photographic legacy.

Unforgettable is the work of such Indian photographers as John K. Hillers,

who accompanied the John Wesley Powell expeditions of 1871-1873, and Timothy H. O'Sullivan, who photographed widely among the Mojave, the Zuni, the Navajo, the Coyotero Apache, the Ute and the Jicarilla Apache while photographing for several government surveys under Lieutenant George M. Wheeler.

The legendary William Henry Jackson's many negatives of the Indians are too well known to be recounted here. Other noteworthy survey photographers include William Pywell who went with General D. S. Stanley to the Yellowstone in 1873, W. H. Illingworth, who accompanied General Custer to the Black Hills in 1874, and R. Benecke, the official photographer for the Newton-Jenney Expedition into the Black Hills during 1875.

The Indians' attitudes, in general, toward photographers seemed to follow rather closely the general attitudes the Indians were developing toward the encroaching white man. They were forced to face the many-sided, relentless pressures of advancing settlers and builders, the puzzling and often hostile social and legal views being enforced against them

CRY OF THE WILD
GOOSE: was present
 when his father, White
 Bear, was taken hostage
 by General Sheridan
 and Colonel Custer,
 1868. He later joined
 the Indian Police.



by white men and their armies. Frontier photographers were often innocent victims of this disintegrating social order. Identified with the United States Army whose protection they often sought, the photographers were frequently misunderstood by the Indians. The red man's original willingness to accommodate and co-exist with the whites deteriorated into hostility and bitterness which often resulted in raiding parties and guerrilla warfare of considerable effectiveness.

As sun-worshippers bound by their own social and cultural structures, the Indians were unable to grasp the scientific reality of the work of the "shadow catchers," men able to capture "shadows," the widely accepted Indian symbol of death. The hesitancy which the Indian often felt to relinquish his image — in effect, to hand over control of some part of himself to another person — and his profound human concern in allowing his wife and children, the most defenseless of all, to be photographed, was almost always misunderstood or disregarded by the "scientific" white man.

In addition, many photographers, encouraged by their Eastern customers to

produce photographs of the "good" Indian or the "sideshow" Indian, quickly lost what esteem and goodwill they may have built up among the Indian leaders, who demanded respect and understanding from their white "brothers."

With such an atmosphere in mind it is all the more surprising to view a surviving body of photographic work among the Plains Indians which reflects a certain warm trust between the participants. This is a central and challenging characteristic of the remaining prints and negatives of Will Soule's work on the Indian frontier.

His portraits bespeak this trust, the views of women and children endorse it, and his scenes of tipis and camps underwrite it. It is unusual and a high tribute to Soule's character that he could overcome so much suspicion and mistrust, in so short a time, among so many "hostile" Indians.

Returning to the photographic business in Boston in partnership with W. D. Everett, Soule, soon married, left the business in 1902, and died in the summer of 1908 in the midst of preparations for a European trip. He was

survived by his wife and the elder of two daughters, Lucia A. Soule.

Of Will Soule's work on the Indian frontier, 166 paper prints and sixty-nine original glass plate negatives are known to have survived. The prints are represented in various collections across the United States, from the Bureau of American Ethnology through the Fort Sill Artillery and Missile Center Museum, the Denver Public Library, the Huntington Library at San Marino and the National Archives in Washington, D.C. The remaining sixty-nine glass plate, original wet-collodion negatives are all in the custody of the History Division of the Los Angeles County Museum of Natural History. They were discovered and identified in the Museum by Robert A. Weinstein, Research Associate in the History of Photography and are the only known Soule negatives still available for printing.



BIG TREE: A Kiowa chief who, with White Bear and Sitting Bear, led many raids into Texas. He, and others, were arrested at a dramatic confrontation with General William Tecumseh Sherman at Fort Sill, 1870. On his release in 1875, Big Tree settled on the reservation. He became a Christian convert and for some thirty years he served as a deacon in the Rainy Mountain Indian Mission Church. He died in 1930.

WICHITA WOMAN

LONE BEAR: dressed as a Kiowa boy







HEAP WOLVES:
a Wichita killed by the
Osage in 1872

SILVER BROOCH:
first chief of the
Penateka Comanches
and known for his
peaceful attitude

ARAPAHO MEN:
at Camp Supply, circa
1868







HO-WEAR: a Yapparika Comanche chief, frequently at Fort Sill in the 1870's



HORSE BACK: Born in Texas about 1810, he was the principal civil chief of the Nocomee Comanches. Generally friendly to the whites, Horse Back was one of the ten leading chiefs for whom houses were built at Fort Sill in 1876. In spite of the pride the Indians felt in their new dwellings, they would not live in them. Horse Back said: "Heap snakes in house."

LITTLE BEAR AND SHIELD (left to right): sons of Little Raven, Arapaho Chief. Shown at Camp Supply, a few miles from Fort Sill.



Soule



**INDIAN
ENCAMPMENT, 1868**



SHAKING HAND:
a Kochateka Comanche
chief



SCALPED HUNTER:
On December 7, 1868,
Mr. Ralph Morrison, a
hunter, was murdered
and scalped by the
Cheyenne within a mile
of Fort Dodge. The
officer is Lieutenant
Philip Reade, 3rd
Infantry. John O. Austin,
Chief of Scouts, is
on the right.

THE WHALE WITH THE SPIRALLED TOOTH

by Jane O. Dart



THE NARWHAL OR SEA UNICORN

The narwhal, the whale with the spiralled tooth, the sea unicorn of the Far North water. Called Agalingwak by the Canadian Eskimos; called the corpse whale (n-ar-hval) by early Scandinavian hunters because of the whitish color of the aging males; called *Monodon monoceros* by Linneaus.

The fascination of the narwhal, of course, is that unique projecting tooth—that long tapering horn — the unicorn horn.

The unicorn mystique is ancient in origin. Man believed in a magical creature bearing but one horn, around which he wove many legends. The first mention of a horned creature of the sea occurs in an early Hebrew account in the Talmud. Noah was unable to accept the unicorn on the ark because of its hugeness. As the flood waters rose, the unicorn swam in the wake and occasionally rested the tip of its glorious horn on the stern of the ark. The fable of the unicorn appears in man's written history from at least the Fourth Century B. C.—the ivory horn spiralling through legends of civilizations from China to Rome for more than two thousand years.

Ctesias, a Greek historian in the Fourth Century B. C., journeyed to Persia to become physician to Darius and Artaxerxes II. He wrote many books on Persia and one on India in which he described certain wild asses having a single horn, and that horn possessing magical properties. The well known description appears in Odell Shephard's "Lore of the Unicorn" — "They have a horn on the forehead which is about a foot and a half in length. The dust filed from this horn is administered in a potion as a protection against deadly drugs" — "Those who drink out of these horns, made into drinking vessels, are not subject, they say, to convulsions or to the holy disease" (epilepsy).

The embroidery of legends from first superstition to colorful complex takes hundreds of years. The *Physiologus*, a 2nd Century A. D. discourse on nature, tells us the wary unicorn can only be captured by a virgin. One thousand years later, in the 12th Century, St. Hildegard of Bingen, a woman of exceptional intellectual curiosity and the earliest Teutonic medical writer, adds that the unicorn

can only be captured asleep with his head resting in the lap of a virgin and — the virgin had to be of royal birth!

In the 13th Century, Albertus Magnus of Cologne described a fish which had but one horn in his forehead like a unicorn. This was the first suggestion that the unicorn horn came from the sea. The remark made little impact, as few wanted to interrupt fantasy with knowledge. From the Orient to Arabia, in the great mosaic of the middle east, the belief was strong, and in Europe medieval man was convinced the mystical unicorn existed and possessed magic in its tusk. Kings and princes of the Church, nobleman and commoner knew that a pinch of powdered horn taken in water or wine could counteract poison and deadly drugs; it was a specific for the plague, leprosy, convulsions and gout, and could restore virility. Apothecaries prescribed more fabulous cures as they were able to trade for the actual ivory with Greenland and Scandinavian hunters in the North, and with exotic traders from the Middle East and Cathay. How great was the status of an apothecary who could show the true horn chained to his counter! Price was no object. The horn could bring many times its weight in gold.

In the middle of the 16th Century, questionings began to be heard. Among them Conrad Gesner of Switzerland, scholar, teacher and zoologist, wrote in the "Historia Animalium" that no one had ever seen a unicorn. Still, there were those spiralled ivory horns, counted as treasures by the Royalty of birth and Church, queens and popes. The Czar of Russia prized an ivory staff inlaid with many precious stones. The Sultan of Turkey presented twelve slender horns to Philip II of Spain; the Medici of Florence and the Kings of France placed enormous value on their unicorn ivories. Listed in the inventory of the French Crown in 1561 is "a great unicorn (horn?) inlaid with gold and supported on a base of three unicorn heads of gold."

Sir Martin Frobisher, an explorer in the commission of Queen Elizabeth, made three voyages from England attempting to find the Northwest passage to China. He wrote, "Upon a small island was found a great dead fish which, so

it seemed, had been embalmed with ice. It was round like to a porpoise, being about twelve foot long, and having a horn of two yards length growing out of the snout or nostrils. This horn is wreathed and straight, like in fashion to a taper made of wax, and may truly be thought to be the sea Unicorn. This horn is to be reserved as a jewel by the Queen Majesties commandment, in her wardrobe of robes." Queen Elizabeth valued her jewel in the many thousands of pounds—£100,000 has been written.

If a pinch of powdered horn in a goblet of wine had the power to counteract poison, why not use a whole goblet of ivory if one had the price? A particularly elegant 16th Century example is in the Guennol collection, and may be seen in The Cloisters (Museum) in New York, surrounded by the famous unicorn tapestries.

In Denmark, more of the tusks appeared as the whaling industry developed. In 1636, the University of Copenhagen received a skeleton of a narwhal complete with tooth, and Professor Ole Worm delivered a paper in public on the tusked whale, carefully explaining that the so-called unicorn horns were decidedly whales' teeth and not animal horn. The dissertation had little impact upon the legend.

Many beautiful objects of narwhal ivory were to be seen throughout Denmark. In the Raskilde Cathedral near Copenhagen, the Bishop's crosier was a large narwhal tusk.

The *pièce de résistance*, however, is the famous Anointment Throne of the kings of Denmark made of narwhal tusk. In 1671, at the Coronation of Christian V, a Danish Bishop remarked enthusiastically, "This priceless throne, which is not to be found anywhere else in the world, is artistically composed of real Unicorn's horn and furnished with gold." This throne may be seen in Rosenborg Castle in Copenhagen.

Also in this collection of treasures is a beautiful ivory and silver tankard which combines the two sources of the legend. The feet of the tankard are silver unicorns, the finial on the handle an Eskimo!

By this time in history, scholars knew the truth of the tooth's origin. In order to maintain the myth, apothecaries



"Upon a small island was found a great dead fish which, so it seemed, had been embalmed with ice. It was round like to a porpoise, being about twelve foot long, and having a horn of two yards length growing out of the snout or nostrils. This horn is wreathed and straight, like in

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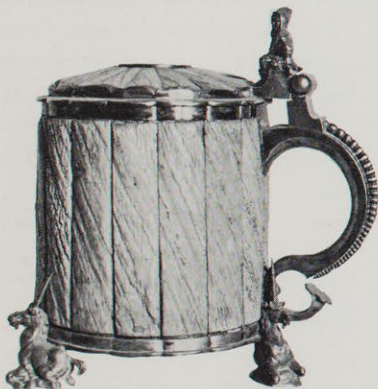
Description from The Three Voyages of Martin Frobisher, 1578.



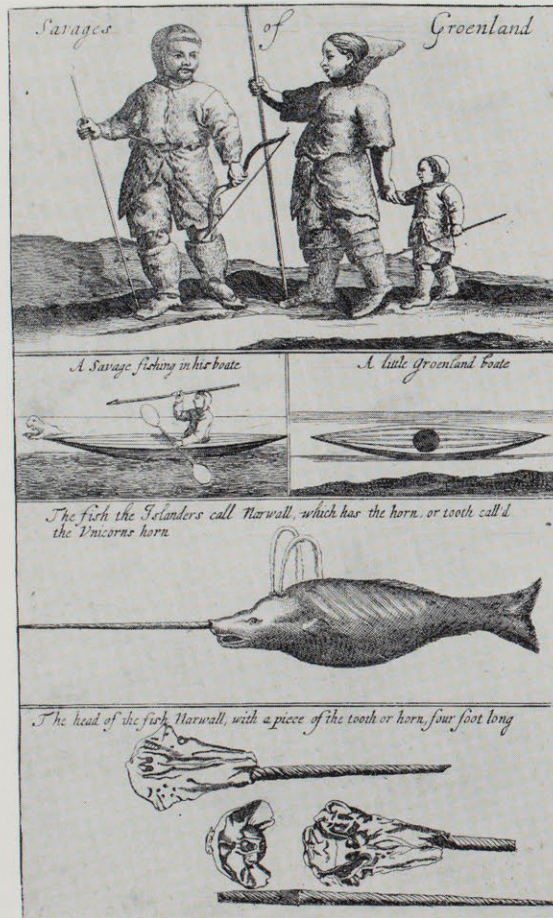
Kananginak, Three Narwhals. Stencil, 18 x 24, 1959



Narwhal wine goblet (16th cent.) in Guennol collection in the Cloisters, N. Y.



Ivory and silver tankard, 17th century, which combines two sources of the narwhal legend. Feet are silver unicorns, the finial on the handle an Eskimo.



Bottom, drawing clearly shows so-called unicorn horn as whales' teeth. Professor Ole Worm delivered a paper in 1636 at the University of Copenhagen explaining this fact. Page is from a book printed in 1704.

coined the reference to the narwhal ivory as *unicornum falsum*. The *unicornum verum* was — in truth — tusks of mammoths found buried deep; that explanation was good for another century of “unicornism.” In fact, as late as 1789, in France a piece of the ivory tusk was always dipped in the wine of Louis XVI before he drank of it. The acceptance of the narwhal was gaining. — The shy and unobserved four-legged unicorn was in retreat.

What sort of creature has provided the ivory tooth that has made legend for these thousands of years.

Actually, except for this improbable tooth, the narwhal is not very prepossessing. This small, dappled whale grows to a length of 12' to 15', and has a low ridge that traces the length of its back. The head is short and rounded and the flippers are small.

The narwhal has no functional teeth, but two upper teeth roots are found in both male and female. In most cases only the left tooth of the male is seen — twisting forth through the lip in a counter clockwise direction. This lovely spiralled tooth of ivory, not enamel, is as much as half as long as its body. The ivory spear, “this wreathed horn,” is hollow almost to the tip. Once in a great while both teeth develop and, amazingly, spiral in the same sinistral direction.

Because of the fragile nature of the ivory, scientists believe the tusk has no particular function but that of male ornamentation. It is not used as a weapon, as the narwhal is not an aggressor. Herman Melville wrote in “Moby Dick,” “. . . the tusk is used as a rake.” Eskimos of the region also believe that the tooth is used as a sweeper on the bottom of the sea to flush out schools of fish. Melville also states, humorously, “The one sided horn would certainly be convenient to him as a folder in reading pamphlets.”

The narwhal cruises in the Far North water between Canada and Greenland to the Arctic Sea, but little is known of its migratory habits. Arriving in numbers in the spring along Baffin Island and north, the narwhal migrates south to the Davis Straits in the fall. The whale is rarely seen below 66°N. In modern times, there are but five recorded instances of sightings in England during

the past four hundred years. The most recent was in 1949, when a female was found stranded in the Thames estuary in Essex. Sightings have been noted in the Alaskan Arctic, but so rarely that the Western Eskimo has no name for this horned whale and has a superstitious dread of it. Excavations of Pleistocene deposits have shown the occasional rare presence of the narwhal in Norfolk, England and Germany.

The Eskimos of Canada are granted permission from the government to hunt narwhal. The hunt is difficult, the quarry elusive, and the Eskimo makes the most of his catch. The skin, called *muktuk*, is almost an inch thick and is highly prized as food. Blubber rendered into oil is of good quality and burns without smoking; the meat is eaten by the Eskimo and his dogs. The tendons make sturdy thongs; the ivory is carved into tools, utensils and handsome art objects. The solid tip is used for working leather and the whole tusk is valued for staffs and trading purposes.

Although the narwhal is vital to the actual sustenance of the Eskimo, this little whale has not appeared often in their legend and song. In Greenland and Labrador mythology there appears one fearsome tale of revenge which implies the origin of the narwhal:

A widow and her son had an argument over a large seal. The mother called on her powers of witchcraft and the son was blinded as he cut into the skin of the animal. In the bitter winter that followed, a polar bear appeared at the hut. The sister helped her brother slay the bear by giving his bow proper aim. His mother vowed he had missed the bear and ordered the daughter not to tell. The mother and daughter ate the bear meat while the son was given fish to eat. Eventually he learned the truth from his sister.

In the season of the white whale, he miraculously recovered his sight and was able to return to hunting. He and his sister decided to take revenge on the mother and she was asked to hunt with him, to act as “hunting-bladder.” The fish line was wrapped around her body to keep the line secure and help him retrieve the harpoon and the catch. The son harpooned a large white whale which pulled the mother into the sea.

She called to her son twice and disappeared forever. “. . . It is said that she was afterward transformed into a fish and her spreading hair turned into long horny teeth — from which narwhals are said to have their origin.”

The Far North lands of the narwhal have been explored and charted — the mystery of the Pole has been solved — man has rescinded most of his mystical legends. But in the strange midnight day of the North, it is the narwhal, in icy remoteness, that reminds us of the centuries of man's involvement in the fantasy and magic of the unicorn.

The unicorn sleeps. The legend is of an older age.

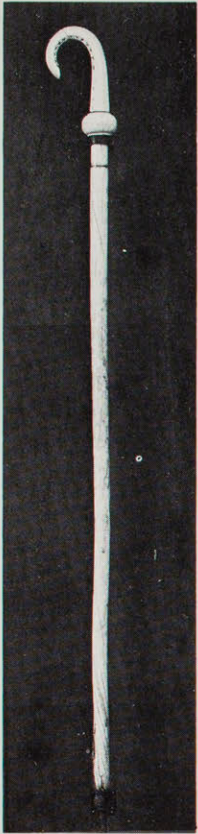
The Eskimo sings

“My eyes are tired,
My worn out eyes,
Which never more will follow
the narwhal
When shooting up from the deep
In order to break the waves of
the sea,
And my muscles nevermore tremble
When I seize the harpoon,
“Wish that the souls
Of the great sea animals I killed
Would help me to get
My heavy thoughts to a distance.
Wish that the memory
Of all my great hunts
Might lift me out of
The weakness of old age.”

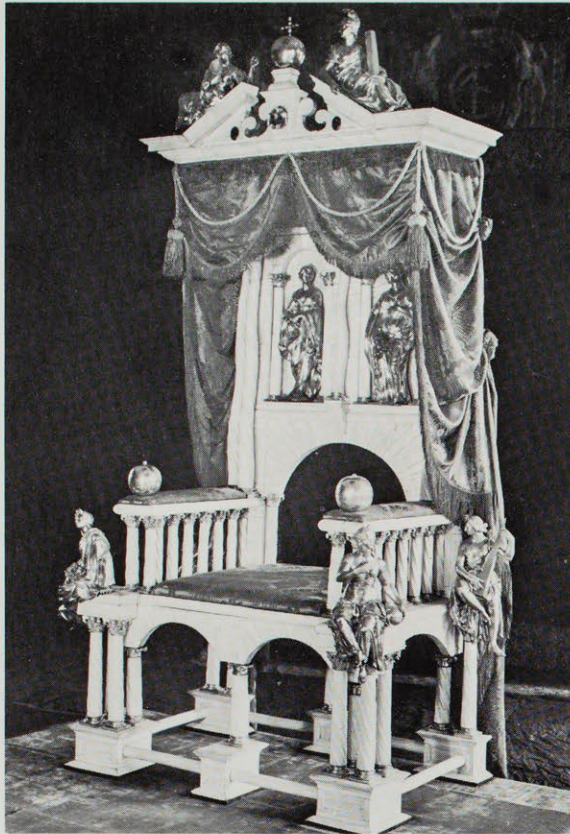
(In “The Yearning of the Old Sealer”
by Knud Rasmussen)



Canada recently honored the narwhal with a commemorative stamp.



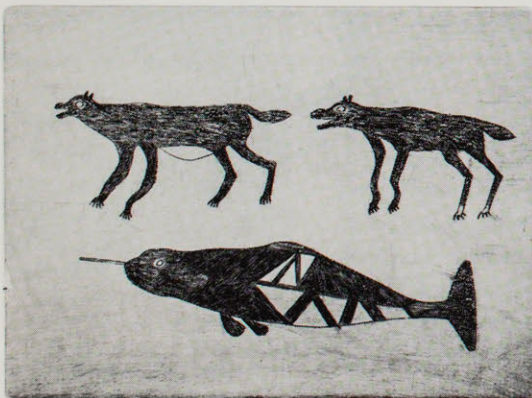
Tusk used
as walking
stick



The Anointment Throne
of the Kings of Denmark
is made of narwhal tusk.



1. Harpoon with shaft,
from Kap Tobin,
North East Greenland.
2. Harpoon head, from
Nuarik, East Greenland.
No. 1 & 2 are still in use
3. Splint of a sledge,
Kap Weber,
North East Greenland.



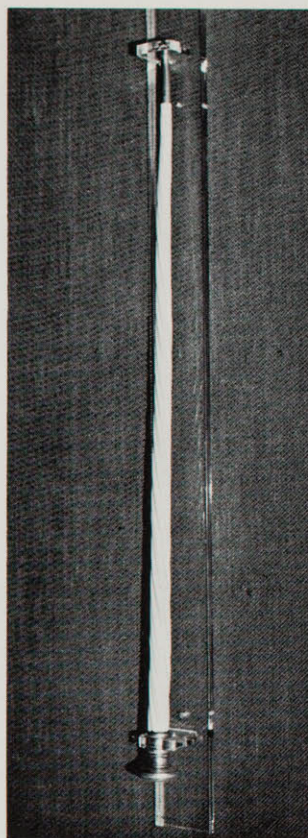
Engraving by Eskimo
of Cape Dorset



1. Harpoon head, from East Greenland, Angmagssalik.

2. Needle Case, from West Greenland Igdluterik, from about 15 -1600.

3. Scoop, also used as a drinking cup, from East Greenland, Angmagssalik.



Bishop's crozier on display at Raskilde Cathedral, near Copenhagen.

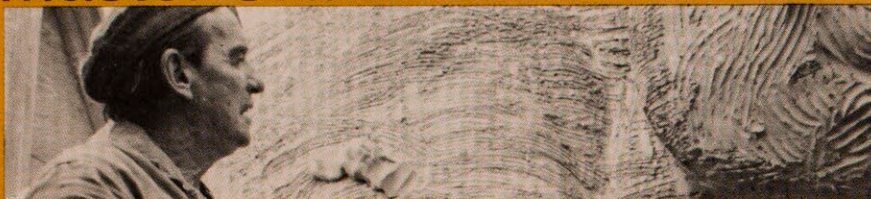


Now the narwhal tusk is highly prized as a decorative object. Here it graces a private home where it is cherished for its scientific interest and mystique, as well as its beauty.

Howard Ball Sculptor

Monster Maker

Master Craftsman



by Dorothy H. Seligman

Howard Ball, a gentle giant of a man, modeled his first elephant when he was seven-years-old.

His minister father had taken him to the circus and there Howard saw an elephant for the first time. As he tells it, "After that trip to the circus, I went outside the next day and picked up some clay and proceeded to model an elephant. My mother saw it and she said, 'Now you save that for Dad so he can see it tonight. Let's set it some place where it can dry.' So we took it in the house and put it in the old wood stove, in the oven. Later, when my mother opened the oven here was this big pile of dirt. We'd tried to dry it too fast."

Since then, Howard Ball has made some twenty-five elephants, all successful. The most recent have been Pleistocene ancestors of the elephant, the Imperial Mammoths. They are part of the new "Pleistocene Meadow" at Hancock Park, a project which is transforming the lake and the meadow there into a large habitat group, populated by life-sized fiberglass restorations of mammals and birds based on remains found in the asphalt pits.

There is considerable misunderstanding about why the animals were preserved in the asphalt. Many think that

our petroleum supply comes from these prehistoric animal remains. Scientists now tell us that oil and asphalt come from lower forms of life, called foraminifera.

During the summer the rains would drain off, leaving the pits bare, and the wind would blow dirt and grass seed over the unstable ground. Beneath its grassy cover, the asphalt was like quicksand. According to Gretchen Sibley, author of *The La Brea Story*, the animals would come down for water and fall in. The mammoth, like his modern elephant cousin, loved to wallow in the water. His fate was inevitable.

The lake scene is already dominated by two Imperial Mammoths and one baby, all sculpted by Mr. Ball. One trumpeting animal stands near the shore, while the female, trapped in the asphalt of the lake bottom, is mutely suffering. The baby is on the shore edge, terrified.

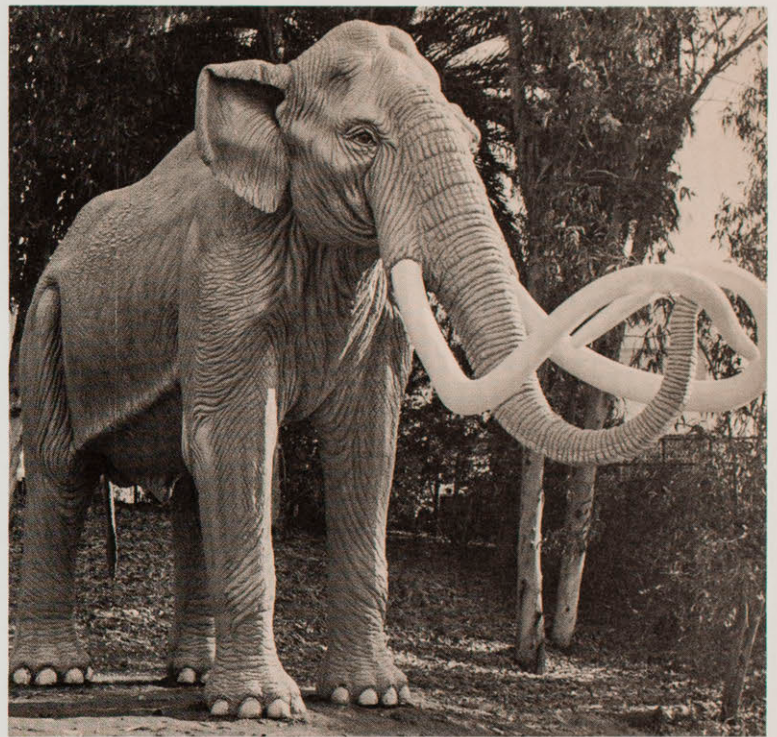
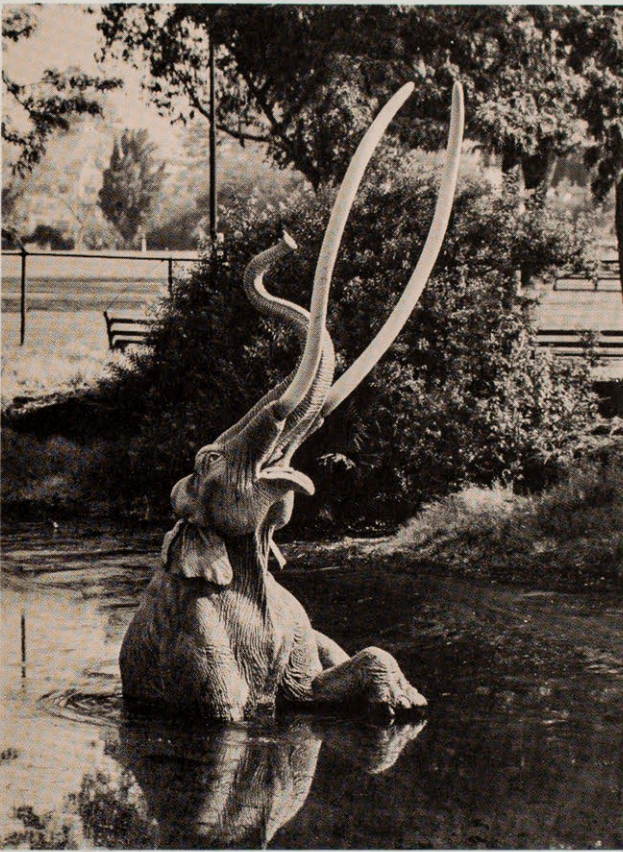
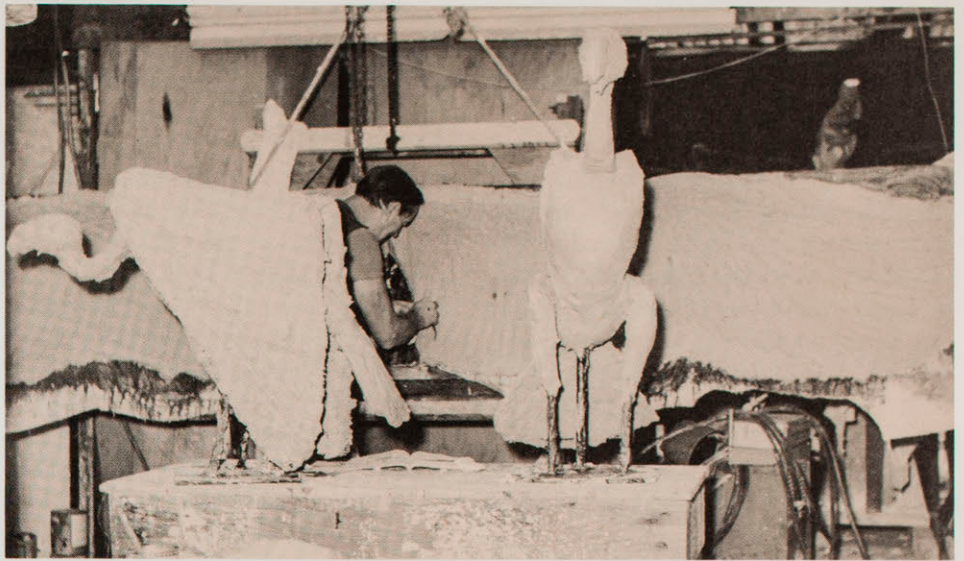
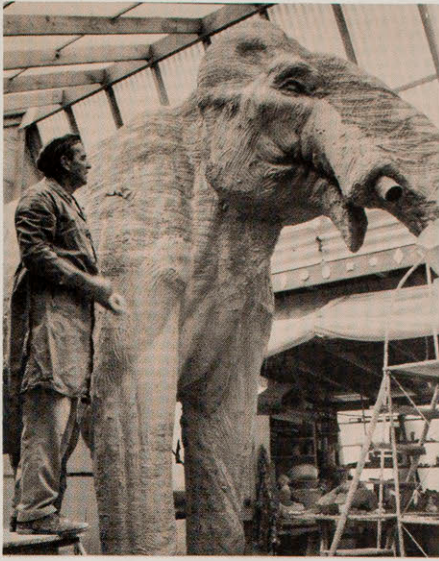
A visit to Howard Ball's studio in San Pedro found the sculptor hard at work on the first of four Teratorni (condor-like vultures) which will be perched on the bank. They will join the two Saber-Toothed Cats which lurk nearby. Most of the completed animals and those in work have been commissioned through the generosity of Mr. and Mrs. William T. Sesnon, Jr.

How does the sculptor go about the job? For one thing, he invents methods as he goes along. At the moment, the Teratornis looks like one huge clay bas relief, going on forever, with intricate feather detail.

What we're seeing, says Mr. Ball, is only the part from the shoulder out, the wings, which when open, span twenty feet on either side. These wings are very light and the feathers are paper-thin but they cannot be modeled paper-thin. When the clay model is finished, a mold is made and fiberglass is laid up in the mold. With the fiberglass you can get the quality of the feathers. The wing span is so great that a separate armature is made to build up the head and body and the wings will be attached to this.

How does one get a job making prehistoric animals? It's easy, according to Mr. Ball, if you already have a reputation as a monster maker.

"I think I became famous as a monster maker because of my size," said Mr. Ball modestly. "After art school I fell in love with three-dimensional work. And it's become a trade that I've used as a living. I don't profess to sit around and do arty stuff. In the first place, I don't do anything unless I get paid for it... I can't... I've had eleven children to raise and educate.



This is the clay model of the Imperial Mammoth in a stage of structuring. Mr. Ball has not yet modeled the wrinkles of the skin—

Dr. J. R. Macdonald got the idea for this pose for the female mammoth from an illustration in C. L. Camp's wonderful book, "Earth Song."

Howard Ball working on two bodies and spread wings of Teratornis.

Final fiberglass mammoth—notice skin detail is perfectly life-like now.

"In any case, we worked at the Hollywood studios under a Union. When the studios needed a sculptor, they called us. I've made everything from monstrous ants to a tiny four-inch figure of Mario Lanza, dressed as Othello, to go on the top of a wedding cake. Anyhow, after my first monster, the studio stipulated me and I sort of got the reputation of being a monster maker. I was so tall they put me on all the big jobs . . . and the little fellows, they'd put them on the little jobs."

Mr. Ball paused in the interview to get a sprayer, of the type used in groceries to freshen the vegetables; he then wet down the teratornis wings.

"Can't let them dry out," he said.

What was the biggest thing he ever did? It was the monsters for **The Brothers Grimm**. And he has done a tremendous amount of work for Walt Disney, including a lot of the animals for the River Ride at Disneyland. The pre-historic animals for Disney at the New York World's Fair, all the big ones, that is, were his handiwork. He also did a lot of ornamentation for the Grand Ballroom in **Sound of Music**. Incidentally, Mr. Ball was the creator of a certain "ancient man carcass" which has recently received nation-wide publicity in a famous adventure magazine.

An artist as craftsman doesn't do simply sculpture, said Mr. Ball firmly. "I've done everything from commercial designing to industrial design. I've done some portraits of children in porcelain, all commission work. And I got into ceramic design at one time, in New York, but when they took the duty off Japanese pottery, that was the end of that.

"I guess I've designed about everything, metal cases to go around washing machines and radiator caps on the old automobiles. Those old cars used to have fancy figures, ladies flying through the air, tigers, bull dogs, all kinds of things."

We had noticed a VW camper parked in front of the studio. "Do you go camping?" we asked.

"I take VW busses and make campers," Mr. Ball said. "I made a fiberglass mold for the top so that it sleeps four, and then remodeled the bus according to my own design." We went outside to inspect the camper and it was beautifully

made, compact, utilitarian.

Mr. Ball, his family (those who aren't grown, the youngest, a son, being sixteen) and the camper toured Europe last summer. He got the money for the trip from selling his yacht. That's right, his yacht. He built three of them in one year.

"I sold two of them to pay for my own," he explained, "and it worked out fine. They were all wood, not fiberglass. I am going to do a couple more now. I have to do this for exercise . . . I get too tense and tight here in the studio. I have to loosen up, so I work in here about four hours and then I go across to the water and put in an hour or so on something worthwhile, like building a boat.

"Right now I just finished up a job decorating a big steel yacht down here in the Harbor and I put a lot of stuff all over the back, all fancy. It's built like an oldtime boat, you know, with all the ornament on the back and the little windows stick out in the back. There's a poop deck up on top. They are about ready to launch it and it's quite a sensation."

Howard Ball has a philosophy that is as refreshing as it is unusual, today.

"The sum of sculpture is knowledge. You have to have a lot of information and you have to be able to see something and retain an image. Now you see it today and you retain the image the rest of your life. This comes from training. For private commissions and doing art sculpture, you have to know mythology and history. History is one of the best sources of knowledge.

"And then anything that has to do with life has to do with sculpture. I think sculpture is just as good an expression of emotion as music, theatre, any art form. Of course I'm not as good as some but I hope to be better. I'm getting better all the time I hope."

That is a sixty-two-year-old man speaking. But his mother lived to be almost ninety and he's figuring on a lot of time left.

"I can do some things that satisfy me if I have the time to put in on it," Mr. Ball thinks. "I did a gnu when I was out at Disney's and I got lost in that gnu. I went up to the Zoo and I studied and I went back to the shop out there and George Snowden, a really great

sculptor, was working with me . . . George is an older man, studied in Rome, taught at Yale . . . well, I got the gnu just about ready and just about done and George came up to me and he grabbed my hands and he said, 'Now don't you touch it — that's good enough for any man, any sculptor.' When I stood back and realized that I had done that, I was overwhelmed. And I couldn't give you a formula."

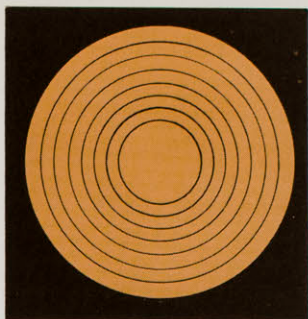
On the subject of modern art, Mr. Ball is positive. The voice loses its gentleness and becomes firm. "They expound on this modern art, this pseudo art; but you know, in man's struggle for civilization, the whole essence of the thing has been communication. No matter what he did, it was based on communication with his fellow man. Now when art comes to a point where it doesn't communicate, I don't think it's art. I don't think it's progressive. I don't think it's progress at all because if I have to be told what a painting is or how the artist felt, or what he was trying to say, then he's missed the point.

"When Serkin sits down at the piano to play, he doesn't just hit the keys promiscuously and make a lot of noise and racket. I think some of the modern composers do. But Beethoven didn't do that. He had a pattern. He had skill. He had training. He had discipline.

"The modern artist sort of throws the discipline away and makes it all emotion. Emotion without discipline is anarchy . . . well, we cannot live without discipline and man cannot exist in anarchy. If every man is his own little law, his own little God, we will cease to exist. So I am a proper believer in proper training, proper discipline."

We asked Mr. Ball if he thought that, working within the framework of this philosophy, he might ever become what he considers really good: "Do you think you will know when you are really good?"

"Maybe 500 years after I've gone, they may come and dig up some of my stuff and say, you know, this guy knew what he was doing. I don't know, you never know. I know what I can do up to a point and then I know where I have to struggle further. I don't think anyone who is really a progressive artist and is progressive in his own skill is ever satisfied."



MUSEUM SPOTLIGHT

Committee for Advanced Training

Miss Gretchen Sibley, museum education specialist in science, has been elected to the offices of vice president of the board of directors and vice chairman of the Committee for Advanced Science Training. She will work with Dr. Ralph McKee, president and director of C. A. S. T. and Assistant Dean of the School of Medicine, U. C. S. and Mr. William McCann, Secretary-Treasurer of C. A. S. T. and Director of the Museum of Science and Industry.

The Committee for Advanced Training was organized about thirteen years ago under the direction of Dr. Harry Sobel, research biochemist. It is financed by the National Science Foundation. A number of high school and college students are chosen each year to work full time during the summer in biology laboratories for training in research techniques. Each student has an opportunity to carry on a research project under the direction of a research scientist. The major universities, colleges, biological and medical research laboratories in Los Angeles county cooperate in accepting these students. In October the students present papers on their work at a special scientific meeting.

The program is open to students from all over the United States, but because of the inconvenience of traveling great distances, most of the students are from California. Dr. Sobel is opening another center in Colorado next year to take care of students in that area. The work will be directed from Los Angeles.

The Los Angeles County Museum has been cooperating in the program from the beginning. Miss Sibley has encouraged promising students from the Museum Natural Science Workshop which she directs to take the qualifying exams for the C. A. S. T. program. Many have been accepted and have done outstanding research.

Miss Sibley was the first adult recognized by C. A. S. T. for her work with science students when she was presented with a plaque in 1960 bestowed "in recognition of her outstanding service to the young people of this community. Her efforts in seeking out and developing future investigators in biomedical sciences stand as a major contribution to science education."

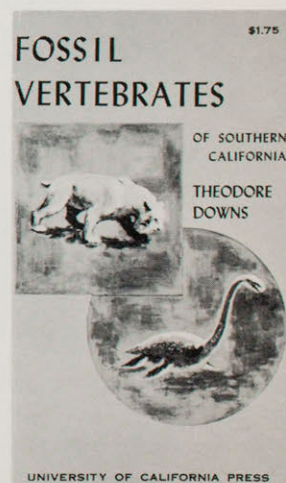
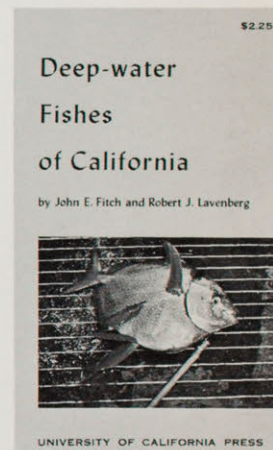
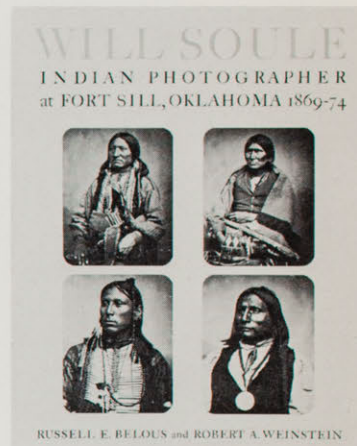
New Books By Museum Staff

The attention of Alliance members may be directed to the publication of three new books by Museum curators. Two are handbooks, forming part of a series of such guide books, published by the University of California Press: one by Dr. Theodore Downs, Chief Curator of Earth Sciences, on "The Fossil Vertebrates of Southern California," and the other by John E. Fitch, Research Associate in Ichthyology, and Robert J. Lavenberg, Curator of Ichthyology, entitled the "Deep-water Fishes of California." The third book, by Russell E. Belous, Curator of Western History, and Robert A. Weinstein, Research Associate in History, treats of "Will Soule, Indian Photographer at Fort Sill, Oklahoma, 1869-1874." The first two are designed as popular treatises for the non-specialist, and are well illustrated and clearly written accounts that achieve their purpose without sacrificing scientific accuracy. The third is a presentation of an

important series of pictorial "documents," hitherto unavailable, and presents this notable album of photographs of Indians of a century ago with a carefully worded introduction and an appreciative interpretation of the historical value of each of the pictures contained in it.

All these books are available for purchase in the Museum Bookshop.

Herbert Friedmann



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